Patent
Customer No.: 006980
Docket No.: STAT1200

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:	
PETITE, Thomas D.	Group Art Unit: 2686
Serial No.: 10/000,477	Examiner: Fox, Bryan J.
Filed: 24 October 2001	Confirmation No: 2316
For: **SYSTEM AND METHOD FOR TRANSMITTING AN EMERGENCY MESSAGE OVER AN INTEGRATED WIRELESS NETWORK**	Docket No.: STAT1200 (formerly 81607-1200)

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF THOMAS D. PETITE

I, Thomas D. Petite, declare as follows:

1. I acknowledge under the penalty of perjury pursuant to 18 U.S.C. § 1001, that willful false statements and the like are punishable by fine or imprisonment, or both, and may jeopardize the validity of the above identified patent application or any patent issuing from the above identified patent application.

2. I invented the subject matter claimed and disclosed in United States Patent Application Serial Number 10/000,477 ("the Application"), filed on 24 October 2001, and entitled "System and Method For Transmitting An Emergency Message Over An Integrated Wireless Network."

3. I conceived the subject matter claimed and disclosed in the Application in this country at least as early as 11 June 2000. Thus, I conceived the currently claimed invention prior to 20

April 2001, which my counsel explains to me is the effective reference date for *Rieser et al.* (U.S. Patent Application Publication No. US 2001/0034223). *Rieser et al.* is presently cited against the Application in an Office Action dated 26 August 2004.

4. After conceiving the subject matter claimed and disclosed in the Application, I diligently reduced the subject matter to practice and diligently worked with my intellectual property counsel to prepare and file the Application.

5. The attached letter (Exhibit A), dated 11 June 2000, evinces that I conceived of a system and method for transmitting an emergency message over an integrated wireless network. In particular, the letter evinces that I conceived of a personal security safety system utilizing radio frequency (RF) networks and was diligently reducing the conceived invention to practice during June 2000.

6. The attached provisional patent application (Exhibit B), filed 21 March 2001 and entitled "Emergency Signaling System Using Global Computer Network" (Serial No. 60/277,571), evinces further proof of prior conception and due diligence. Specifically, pages 5-13 of the provisional application further illustrate that I conceived of a system and method for transmitting an emergency message over an integrated wireless network, and diligently worked with my intellectual property counsel to prepare and file the provisional patent application.

7. After filing the provisional patent application and diligently further reducing my invention to practice, I continued to diligently work with my intellectual property counsel to prepare and file the Application on 24 October 2001.

8. I have never abandoned the subject matter claimed and disclosed in the Application.

This 24th day of January, 2005.

Thomas D. Petite

1423416_1.DOC

StatSiGNAL Systems, Inc.
6065 Roswell Road,
Atlanta, Georgia 30328

June 11, 2000

The Grand Court
3927 Hadjes Drive
Lake Worth, Florida 33467

Dear Mr. Teich

In response to your letter dated June 7th, I would like to thank you and your staff for their patience during the development and implementation of the current version of the SOS system. StatSiGNAL has and will continue to support Grand Court in service and implementation of the current SOS system. We will also continue to support Grand Court on any technical problems that exist with the current SOS system. The current SOS system in place is not the initial system sold, all upgrades and service calls have been performed with no additional charges to Grand Court. We have installed 18 additional repeaters since the contract was signed with no charge.

As to your thoughts on what was promised. StatSiGNAL was promised additional installations of the SOS system from Grand Court Lifestyles, and for those locations we agreed to work with you and your staff on piloting new revisions or upgrades at a special cost at your location where by other locations would be able to see the technology enhancements working. We have submitted several proposals for locations we have traveled to at our expense to survey, and as of this date no other locations have been awarded. While we understand that awarding all sites is unrealistic, we could expect at least one quote to respond to. Without additional locations, development of the current system enhancements is going to be very slow if any at all.

Regarding a fire system, StatSiGNAL does have a smoke reporting system in design but it cannot be integrated as part of the current system.
Due to the lack of response to implement the current SOS system from Grand Court Lifestyles. StatSiGNAL changed its direction with its technology and developed a new reporting system on a different radio frequency than the currently installed SOS system at Lake Worth.

Our current version when finalized will have the ability to be a full reporting system with self diagnostics through the Internet and is designed to offer a multitude of services for cluster homes and multi-housing locations. Some of these services are as follows;

a) Energy Management (electric meters)
b) Gas Meters
c) Water Meters
d) Ground Irrigation Systems
e) Personal Security (safety)
f) Intrusion Protection
g) Heating and Air Control
h) Time Management
i) Smoke and Fire Notification
j) Wireless Internet Access

All these services will be Internet applications that will allow your business back office operations to be consolidated and will help reduce operating cost.

The smoke detector will be a by-product of this new system and is inclusive in the newer system. In order to install smoke detectors, we would have to integrate our newer version at Lake Worth. This means we would have to replace all the working components of your existing system and do a complete new system upgrade, which we are willing to do. I will work with Grand Court on this at a special upgrade cost for your Lake Worth location and I will be getting with you on a plan once we have finished our new product technology.

I do personally apologize for not communicating to you formally on restraints we are overcoming on our new technology. As of this date I can still not give you a definite date as to when I would be able to install a reporting smoke detector at Lake Worth. This is due to numerous factors including Underwriters Laboratory approval of the detector (currently being developed).

As stated above, StatSiGNAL has and will continue to support Grand Court with service and field support.

StatSiGNAL is experiencing some very exciting times and hope Grand Court will continue to be a part of this endeavor. We will continue to strive to support Grand Court with all efforts from field support to technical service.

Please don't hesitate to call me if you have any questions. I will keep you up dated on our progress as to when this new technology will be available.

Regards,

T. David Petite
President, Chief Operating Officer

UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
60/277,571	03/21/2001		75	81607-8150			

CONFIRMATION NO. 2444

FILING RECEIPT

OC000000006221335

Daniel R. McClure
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.
Suite 1750
100 Galleria Parkway
Atlanta, GA 30339

Date Mailed: 06/25/2001

Receipt is acknowledged of this provisional Patent Application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

Thomas D. Petite, Douglasville, GA;

If Required, Foreign Filing License Granted 06/22/2001

Projected Publication Date: N/A

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Emergency signaling system using global computer network

Data entry by : TSIGE, WUBALEM **Team :** OIPE **Date:** 06/25/2001

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Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
PROVISIONAL APPLICATION COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION under 37 CFR 1.53(b)(2).

Docket No.: 81607-8150	Type (+) inside box [+]

INVENTOR(S)/APPLICANT(S)

FIRST NAME	MI	LAST NAME	RESIDENCE (City and Either State or Foreign County)
Thomas	D.	Petite	Douglasville, Georgia

TITLE OF THE INVENTION (280 Characters)

Emergency Signaling System Using Global Computer Network

CORRESPONDENCE ADDRESS

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ENCLOSED APPLICATION PARTS ***(check all that apply)***

[X] Specification Number of Pages [13] [X] Small Entity

[ ] Drawings Number of Sheets [ ] [ ] Other (specify):

METHOD OF PAYMENT ***(check one)***

☒ A check or money order is enclosed to cover the Provisional filing fees ☐ The Commissioner is authorized to charge our **Deposit Account No. 20-0778** for the provisional application filing fee. ☒ The Commissioner is authorized to charge our **Deposit Account No. 20-0778** any insufficiencies or credit any overpayment.	PROVISIONAL FILING FEE AMOUNT ($)	$75.00

Respectfully submitted,

SIGNATURE: _____ DATE: March 21, 2001

TYPE or PRINTED NAME: Daniel R. McClure REGISTRATION NO.: 38,962

[ ] Additional inventors are being named on separately numbered sheets attached hereto.

Express Mail Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service as "EXPRESS MAI POST OFFICE TO ADDRESSEE", in an envelope addressed to" Commissioner of Patents and Trademarks, Washington, D.C. 20231 on March 21, 2001.

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_____
Signature - Jeannette Buehler

EMERGENCY SIGNALING SYSTEM USING GLOBAL COMPUTER NETWORK

FIELD OF THE INVENTION

The present invention generally relates to emergency systems, and more particularly, to a system and method for providing monitoring of security and/or providing emergency messages using a global computer network.

BACKGROUND OF THE INVENTION

A wide variety of reporting systems have been developed for providing communication between a premise and a central monitoring facility. In the past, these reporting systems have been typically limited to commercial and residential security alarm systems, medical emergency systems, and environmental equipment monitoring systems. However, with the increasing development of wireless communications technology, the use and applications of reporting systems is expected to grow to encompass fleet management, remote utility metering, vending machine status, and many other commercial markets.

The key to the effectiveness and integrity of the reporting system provided often depends upon the means which are used to establish communications between the reporting unit provided at the premises and the monitoring equipment provided at the central monitoring facility. It has become well known in the industry that repetitive monitoring of the link between the premise and central monitoring facility provides an enhancement in reliability. These systems which implement a periodic monitoring of the communication link are commonly known as "supervised" reporting devices.

Aside from increased reliability in the communication link, there are several notable reasons why the use of a "supervised" system is desirable over the less sophisticated "unsupervised" systems. With respect to the use of the reporting system as a security alarm device, insurance companies often determine insurance rates based on the quality of electronic and/or automatic monitoring of the communication link between their commercial establishment or residence and a central monitoring facility. In fact, Underwriters Laboratories has established several grade levels which attach to the type and extent of monitoring provided. The highest grade or grade AA is attached to a supervised link which is monitored by a central monitoring station no later than 6 minutes after compromise in the link.

One supervised system for providing communications between the premises and the central monitoring facility is by means of direct wired telephone lines which connect the premise to the central monitoring facility. The drawbacks of such a system is the high installation expense and high usage fees as well as low availability. Another supervised system uses a switched telephone network commonly known as a derived channel system. Although the use of a derived channel system can be shared by more users, it forces telephone companies to add expensive equipment which does not provide an attractive return. The result is that these systems are not widely available and are limited to commercial areas where higher profitability on alarm systems can be expected.

Another supervised system involves the replacement of wired lines with wireless communications such as two-way radios. Radio systems are reliable because there is less of a likelihood of outside interference such as line tampering. Although in some respects more reliable than a wired system, two-way radio systems are subject to significant

limitations in view of the regulatory constraints which are in place regarding the use of radio waves, and in terms of the number of frequencies which are available for use in a particular system, limiting the number of subscribers. In addition, the significant cost of installation and maintenance with the frequent use of such a system is often prohibitive for supervisory purposes. Consequently, their application is almost exclusively limited to non-supervised systems.

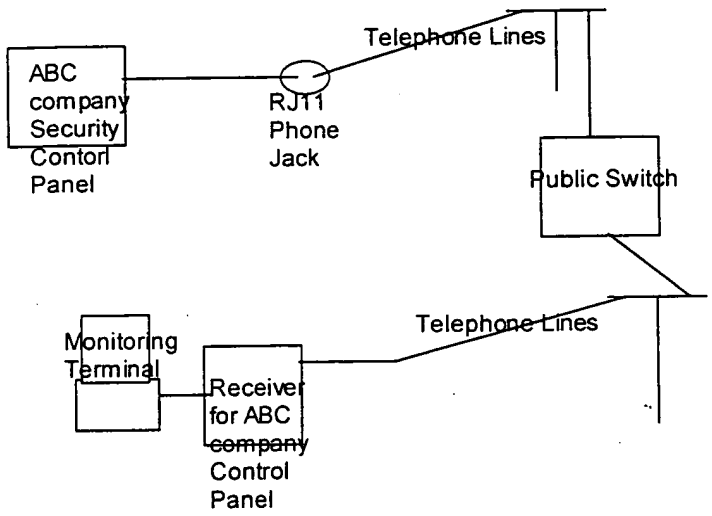
In U.S. Pat. No. 4,868,859 (hereinafter '859), issuing to Sheffer, lines 47-50, it was suggested that two-way radio communications be accomplished by means of the cellular telephone network. At first glance, this appears attractive because it incorporates an existing cellular communication infrastructure. The disclosure in Sheffer '859 suggests combining a supervised derived channel system with a non-supervised cellular telephone system to provide a more reliable redundant system. Specifically, Sheffer '859 teaches the use of a non-supervised cellular telephone due to the prohibitive expense as a; supervised system resulting from charges associated with the cellular telephone network. For example, each time the central monitoring facility monitors the link, a supervised call must be made over the cellular telephone network resulting in significant telephone charges. As is clearly evident from the above example, the cost of such a supervised wireless system is prohibitive to the average consumer.

For example, in the context of an alarm system, today Alarm Monitoring Systems have a local control panel in a home or a business. All Alarm Panels communicate to sensor devices using analog communication paths. Thus limiting them to communicate to the Internet.

Today typically all alarm systems use POTs to relay alarm signals. Which means all signals are routed through the local switches until it is delivered to a remote monitoring station. All signals are analog and converted to digital at a receiver located at the monitoring center.

At the monitoring center all signals are routed to a proprietary receiver box that is designed for a particular security manufacturers panel which processes the alarm verifications.

An example below:



This flow chart is used today to show how alarm signals are routed for burglary fire and personal security. This is a closed network solution that is currently approved and certified by NFPA (National Fire Protection Agency) & UL (Underwriters Laboratories). NFPA currently allows 180 seconds from the time the signal is sent for the signal to be received by the receiver. This system reports by Zone hi-low, on-off in the control panel. In other words if a sensor is tripped, the sensor will send a signal that the switch is open

to the control panel. The control panel will then issue a command to perform a dialup for the RJ11. The on/off or open/closed signal is relayed to the receiver for the control panel at the monitoring center and the receiver verifies and attaches the ID location of the local control panel and the zone that is tripped. This information is then relayed to the monitoring terminal.

Accordingly, it is desired to provide an improved system that overcomes the shortcomings of the prior art.

THE PRESENT INVENTION

Having summarized the invention above, reference is now made in detail to the description of the invention as illustrated in the drawings. While the invention will be described in connection with these drawings, there is no intent to limit it to the embodiment or embodiments disclosed therein. On the contrary, the intent is to cover all alternatives, modifications and equivalents included within the spirit and scope of the invention as defined by the appended claims.

The present invention reflects a fundamental technology breakthrough, but creating and utilizing a derived channel over a global computer network (e.g., the Internet). In the past, the Internet has not proven capable of handling emergency or security messaging due to the nature of IP (Internet Protocol) communications. Since communications across the Internet are "connectionless" and unreliable (i.e., they don't require acknowledgements), the medium has not been deemed suitable for communicating emergency or security information. Other reasons also exist rendering the Internet a generally unsuitable medium for communication such information. For

example, messages from origin to destination typically travel through a number of intermediate servers or other points. These intermediate points do not always immediately or instantly relay the message, creating unreasonable delays for emergency type messaging.

The present invention, however, addresses these deficiencies and provides a novel system and method for providing emergency messaging over a global computer network, using a derived channel.

The inventive Internet Security Monitoring system (ISMS) will report on an average of 500 mil seconds with the always on connection.

ISMS does away with the following;

1. No need for local control panels "Alarm Panels".
2. No Monitoring Center Alarm Panel (Receivers)
3. No Monitoring Center Software's for Alarm Panel Receivers
4. No need for dial-up equipment dialers or RJ11
5. No more individual communication software for each panel manufacturer

What the ISMS provides;

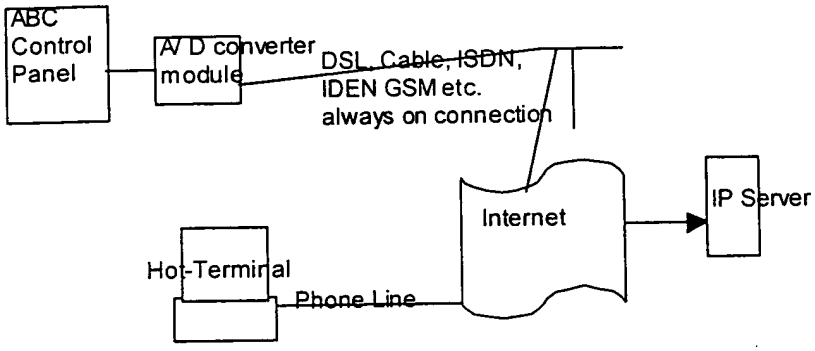
1. Open Ended System that is scalable which would standardize the Alarm Industry communication networks for monitoring alarm systems
2. Converts sensor data into the universal language TCP/IP & UDP, reducing the need for smarts in the local area being monitored thus reducing costs.
3. Lower Administrative Cost for Monitoring Centers NOCs

4. Internet Wrappable communication network that can seamlessly be wrapped into other Internet operating systems for adding scalability services such as ERPs "enterprise resource planning" or DSA "decision support applications" for billing and other operational forecasting.

5. Lower Operating Costs for Monitoring Centers.

How the ISMS works?

Installing the ISMS A/D converter into Existing Alarm Panels and creating an always on system



The Internet Security Monitoring System will convert the hi/low switch or on/off zone reporting to an Analog to Digital data bit stream output. Each A/D converter will have its individual IP address or MAC address. When a sensor is tripped the control panel will send out an open signal to the converter. The converter will send out its IP or MAC address with a zone open signal until it receives an ACK. If it does not receive an ACK

within 30 seconds it will try another route. It will continue until it receives an ACK from the IP Gateway server. The average signaling time is 500 mil seconds.

The always-on connection can be a connection point from a DSL, Cable, Fiber optics, ISDN, or any other type of connection such as a POT that is connected to the ISP without having to perform a dial up. Other ways of connecting are Cell data packet systems, such as IDEN, GSM, CDPD, etc. Each form of communication maybe connected to its on frame relay system where by providing the always-on routing routines to the ISMS. The ISMS is a remote facility that only gathers data and relays the data to a remote Hot-terminal. The ISMS performs the same type of work as a control panel. In most applications a local control panel will not be required, but rather technology such as that disclosed in patent number 5,926,103 may be employed.

Today alarm sensor signals are generally routed to a local control panel and then sent to a monitoring center. There are teachings of alarms being sent to a gateway such as Bell South Cellemetry UpLink product, however, the signal being sent monitors the telephone line to verify that the alarm can be sent out even if the telephone line is cut via Cellemetry's use of upper channel for the Cellular frequencies which is used for verifying analog cell phone ids. This system does not and cannot relay on the Internet as digital data for communicating. The analog signal is sent via the cellular infrastructure to a frame relay then the information is sent to the monitoring station that must be connected to their switch. No signals are being sent through an Internet portal. The frequency used is limited by the FCC since it uses the upper channel for communicating. What is usually communicated is the MAC address of the telephone which can only send out a 32 byte message and cannot communicate to the local control panel.

The difference with ISMS is in how it works: An existing Alarm Control panel can convert sensors by installing an ISMS bridge or converter changing the signal from Analog to Digital in pre-existing control panels. All sensors can be issued a synthetic MAC address which will be assigned to individual devices or sensors in a home or business by a local converter or bridge unit installed at the control panel, the signal then will be routed to the ISMS preferably always ISP server. These devices can communicate to the local control panel via RF or hardwire. The preference is to use RF, however most existing sensor alarm panels in homes or businesses are hardwired systems, thus installing the ISMS A/D converter for ISMS servers will be an option to connect DSL or other types of always on communication feeds.

The Hosting System (ISP)

The Internet Server Portal must meet the high reliability standards of 99.999% reliability. The host facility must be comprised of both a world-class physical and technical environment. The hosting location must use best-of-breed, temperature-controlled Network Operations Centers supported by multiple OC-48, OC-12 and OC-3 backbone connections. Coupled with a fully redundant, uninterrupted power supply with backup generators, to ensure superior levels of reliability. Control rooms must house fully automated life support systems, allowing for real-time analysis, review and systems management. The ISMS server facility will have 99.999% hi-reliability using multiple communication inputs with a minimum of four (4) backbone providers located in close

proximity to the world's leading Internet backbone providers, including UUNET Technologies, Sprint Communications Company, Qwest Communications International, Inc. and Cable and Wireless. Delivery of our content must be dynamically routed to the most accessible provider.

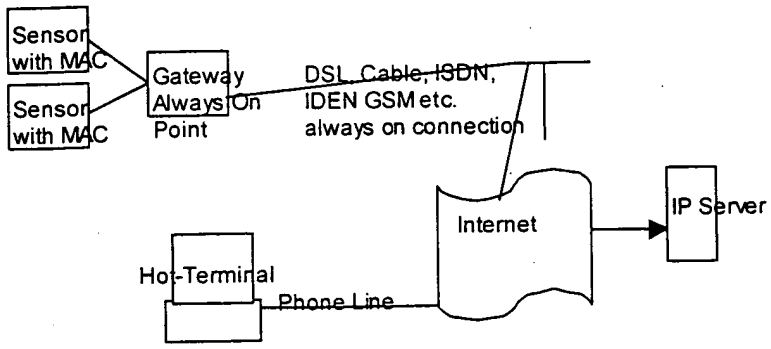
The host site must reside on a hi-reliability communications grid. Example of this is there are 3 main entry points in United States for fiber optics, Atlanta, Washington, and Los Angles. It is preferable to be located zero miles on one of these grids. Each location must offer a wide range of security features, including 24/7 phase-three biometric security systems requiring palm-scanning access, along with kinetic video monitoring.

In conjunction with the high reliability communications is the power grid. The ISP site must reside on a grid with less than 0.5 hour total down time per year. This requires an above average connection with the local utility.

For those who can appreciate the art of the Internet Security Monitoring System, it can be used as a wireless input. Most digital Cell phones have a MAC address in them and most phones today are web enabled with A to D converters built in. If a cell phone user presses 911 the signal can be converted from A to D and a MAC address can be sent to the server gateway which houses all the pertinent data for identifying the user such as name, height, weight, hair color, vehicle information, and medical conditions. When the person dials 911 the signal will be sent to the always on cell infrastructure and relay the MAC address for the users telephone. Along with user information will be the responding devices address which gives an proximate address of the cell receiver unit which gives

the dispatcher an instant message from the Hot Terminal identifying who the caller is and what area they are located.

Listed below will indicate how MAC or individual IP devices can be monitored via the Internet.



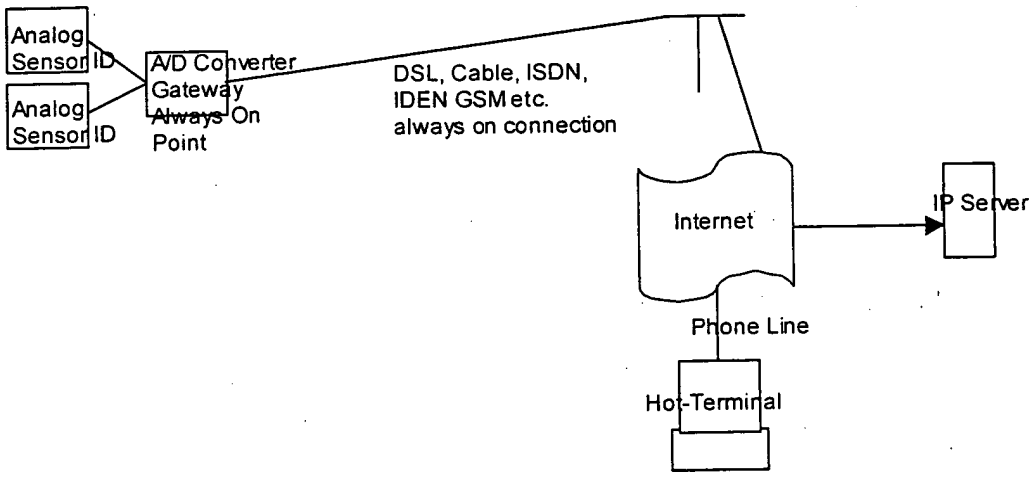
Also for those who can appreciate the art of the Internet Security Monitoring System open structure can input any always on digital signaling devices that have a MAC address or Individual ID address.

Another example of the high reliability of the ISMS; when a device is actuated such as a digital cell phone to call 911. The signal will be sent out until the cell phone receives an ACK back from the ISMS server. Of course the high reliability ACK will be dependant on the Cell companies implementing an ISMS high reliability communication system protocol. This will provide a new standard for Cell Phone 911 that they are now 99.999 communicating with the ISMS.

Currently if you activate 911 and the call does not go through the phone will wait to you give it another manual command to send another signal.

The monitoring system is designed as an always on system which converts A/D information from a local converter located around a facility or area in which devices are being monitored.

An example;



The embodiment or embodiments discussed were chosen and described to illustrate the principles of the invention and its practical application to enable one of ordinary skill in the art to utilize the invention in various embodiments and with various modifications as are suited to the particular use contemplated. All such modifications and variations are within the scope of the invention as determined by the appended claims

when interpreted in accordance with the breadth to which they are fairly and legally entitled.